cabinet will be required for carriers to access distribution cables.[58] U S WEST estimates that the additional costs of such equipment and re-engineering would be approximately $50 per access line at relatively modest levels of sub-loop unbundling.[59] This is exclusive of any modifications to operational support systems necessary to support such an unbundled sub-loop architecture. These costs could become enormous if incumbent LECs were required to unbundle loops at every interconnection point as several commentors have suggested. Figure 2 (attached hereto) illustrates the possible interconnection points that could exist in standard loops.

J. The Hatfield Model Cannot Be Used For Any Purpose Notice Section II.B.2.

A document which has been the source of considerable mischief in this docket and before state regulatory commission is something which AT&T calls the "Hatfield Model." This Model sets forth some pricing and costing assumptions which are wildly unrealistic and, if implemented, would be confiscatory. AT&T proposes using the Hatfield Model as a "litmus test" for costs and prices.[60]

The Hatfield Model is dealt with in some depth in the Harris Reply Affidavit.[61] Those AT&T assertions which it claims stem from the Hatfield Model appear, almost always, to be dead wrong. Yet, there is something far more

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[58] Figure 1 would become even more complex if a remote terminal as involved and DLC technology was used to derive individual loops.

[59] See U S WEST Comments at 52 n.114.

[60] AT&T at 54.

[61] See Harris Reply Affidavit at 8-12.

pernicious about the Hatfield Model than its tendency to produce faulty conclusions. The Hatfield Model is a secret!

When U S WEST asked to see the actual Hatfield Model during a recent proceeding in Utah, U S WEST's representatives were required to sign a protective agreement. The agreement would have required U S WEST to promise not to use the knowledge gained from an inspection of the Model for any other purpose, including the instant proceeding.[62]

No one can really prove why the Hatfield Model produces such bizarre results, because no one can see the Model. It would constitute a serious due process violation to utilize the Hatfield Model for any purpose in this proceeding.

As a further consideration on the use of economic costing models, U S WEST submits that no model should be utilized for any purpose unless it has been publicly disclosed sufficiently in advance to permit public comment on the model and its operation. This would apply to models developed internally by the Commission's staff.

IV. TECHNICAL FEASIBILITY MUST BE DEFINED IN TERMS OF NETWORK INTEROPERABILITY
Notice Section II.B.2.

Many commentors imply, or actually assert, that the words "technically feasible" in the 1996 Act require incumbent LECs to dismantle their networks into

[62] In other proceedings, U S WEST has resisted demands that its proprietary business information be made public. If the Hatfield Model dealt with AT&T's costs or prices, similar arguments could be made. But the Hatfield Model deals with U S WEST's prices, and there is no legitimate reason to keep it secret.

component pieces, regardless of the impact on incumbent LEC services or end-user customers. Of course, "technically feasible" does not mean "technically possible,"[63] and the economic component of technically feasible plays a large role in ensuring that uneconomic unbundling will not be demanded.

In addition, in a world of multiple networks, the term "technically feasible interconnection" carries with it the connotation of network interoperability. If network interoperability cannot be insured for any interconnection or unbundling plan, it should not be considered to be technically feasible.

A. Sub-Loop Unbundling Is Not Technically Feasible In Today's Environment
Notice Section II.B.2.

Numerous commentors claim that sub-loop unbundling is technically feasible.[64] AT&T's position appears to be that if incumbent LEC loop equipment is interconnected with other sub-loop elements using "standard industry technical specifications and systems," then sub-loop unbundling must be technically feasible.[65] MCI goes one step further. It asserts that "operations support systems (including back office processes and other business processes) needed for an unbundled, competitive environment need not be in place for a finding of technical feasibility; these of course will not exist in the current bundled, monopoly

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[63] See Comments of the United States Telephone Association ("USTA"), filed herein May 16, 1996 at 10-12, U S WEST Comments at 48-50.

[64] See, e.g., AT&T at 19-20; MCI at 29-30; Comments of WorldCom, Inc. d/b/a LDDS WorldCom ("LDDS"), filed herein May 16, 1996 at 41-57.

[65] AT&T at 19.

environment."[66] Neither AT&T nor MCI's advocacy represents a reasonable interpretation of the Act's technically feasible interconnection requirement. NCTA and Sprint Corporation (or "Sprint"), on the other hand, in opposing a sub-loop unbundling requirement, recognize the significant obstacles to be overcome in any sub-loop unbundling scenario.[67]

In discussing the complexities of sub-loop unbundling, Sprint points out a fact that U S WEST and many state regulatory commissions are familiar with.[68]

> The additional administrative costs occasioned by sub-loop unbundling would result in higher charges, for the sum of the sub-loop components, than the charge for a bundled loop.[69]

Sprint[70] believes that a better approach is to allow incumbent LECs to handle sub-loop unbundling requests through a *bona fide* request process.[71] While U S WEST

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[66] MCI at 13. This is illogical. If such operation support systems are necessary, and if they do not currently exist, how can sub-loop unbundling be technically feasible in today's environment? MCI leaves this question unanswered, other than to assert that "requiring the prior existence of operational support systems for a finding of technical feasibility would represent an anticompetitive standard." How this is true is never even suggested, but it seems evident that if the systems do not exist, it is not technically feasible to unbundle such network elements.

[67] NCTA at 41-42; Comments of Sprint Corporation, filed herein May 16, 1996 at 30-32.

[68] U S WEST Comments at 50-53.

[69] Sprint at 32.

[70] Id. at 31-32.

[71] In clarifying that sub-loop unbundling has not been unconditionally mandated in Illinois, Ameritech states that "[t]he Illinois Commerce Commission has approved subloop unbundling, but only in response to bona fide requests that are found to be technically feasible." Comments of Ameritech, filed herein May 16, 1996 at 38 n. 62.

does not believe that sub-loop unbundling is technically feasible at the present time, U S WEST does support the use of the *bona fide* request process to address additional requests for interconnection and unbundling.[72]

A brief discussion of AT&T's proposed sub-loop elements is instructive. AT&T proposes three sub-loop elements: loop distribution, loop feeder, and loop concentrator/multiplexor.[73] Even with this level of unbundling, it would no longer be possible to remotely test loops end-to-end without the development of new systems. This means that in the case of a trouble report on a loop there would have to be a field dispatch and possibly a central office dispatch to isolate the problem.[74]

Under the AT&T proposal, some type of protection or demarcation jack would be required at every sub-loop interface where interconnection is requested. With

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[72] U S WEST supports a *bona fide* request process with characteristics similar to those described in the USTA filing. (See USTA at 14-15). In summary, any *bona fide* request process employed by the Commission should have the following characteristics: 1) it should begin with the submission of a bona fide request for interconnection or unbundling; 2) it should discourage spurious requests; 3) it should allow incumbent LECs to recover investment and other costs associated with the request; 4) it should require prompt processing of *bona fide* request by incumbent LECs; and 5) it should provide a basis for reasoned judgment should either party elect arbitration. (Id.)

[73] AT&T at 19.

[74] Unless an interconnector has some type of remote testing capability, it would be virtually impossible to determine if the trouble is in incumbent LEC facilities or the interconnector's facilities. Even then, dispatches may be required on the part of both the incumbent LEC and the interconnector. (Also see Sprint at 32.). If an incumbent LEC dispatch is requested or required and no trouble is found in incumbent LEC facilities, the interconnector will be charged for the dispatch. This could be a considerable sum of money. As U S WEST noted in its Comments, it currently costs between $88 and $120 for an outside dispatch. (U S WEST Comments at 51 n.111).

approximately 80,000 FDI's in U S WEST's network[75], this would require a significant investment, even if such sub-loop unbundling is only requested at a small percentage of existing FDIs.

Currently, 80-85% of U S WEST's POTS orders are electronically provisioned. Under AT&T's proposal and U S WEST's current systems, manual provisioning sub-loop components would be required in virtually all cases.[76] Needless to say, it would be impossible for incumbent LECs to maintain current service intervals for new service requests, let alone trouble reports on existing service. Similarly, it would be exceedingly difficult to establish and maintain current end-to-end performance levels.

Likewise, U S WEST does not have a mechanized system to track sub-loop components. Thus, it would be difficult to provide interconnectors with assurances that necessary interconnection elements/facilities are available without a field inspection/dispatch. In addition to developing new mechanized tracking systems, incumbent LECs would have to include a larger reserve capacity to insure that interconnectors needs could be satisfied on a going-forward basis.

These are but a few of the "real life" problems that would be encountered to unbundle the loop into its component parts. While there is no doubt that it is technically possible that incumbent LECs could eventually accommodate sub-loop unbundling, the costs of achieving this unbundling would be prohibitive. Any bona

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[75] An FDI may serve anywhere from 600 to 1800 access lines.

[76] AT&T's proposal that it be permitted to commandeer U S WEST's data bases is clearly not reasonable.

fide request for sub-loop unbundling must include a willingness to pay all such costs.

B. It Is Not Technically Feasible To Partition Incumbent LEC Switches Notice Section II.B.2.

Numerous commentors contend that incumbent LECs should be required to unbundle or partition their switches for the benefit of interconnectors.[77] While this may be an economical and operational possibility with future generations of incumbent LEC switches, it is not currently possible. Incumbent LEC switches were never designed to meet the needs of multiple controllers.[78] As Sprint points out in its comments, "the preponderance of the switch is a shared resource which cannot be physically partitioned into discrete components dedicated to the use of a purchaser."[79] Any such switch partitioning would only come at great economic cost and loss of efficiency.

Defining basic local switching as a network element is a reasonable approach which would allow interconnectors to purchase switching functions and central office services (e.g., call forwarding, etc.) on an unbundled basis. One pricing anomaly should be avoided here. Incumbent LECs cannot be required to price

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[77] See, e.g., AT&T at 20-21; MCI at 29-38; LDDS at 42-46.

[78] See U S WEST Comments at 55 n.118.

[79] Sprint at 33.

currently available retail central office services on other than a wholesale basis (i.e., for resale).[80]

C. The Act Neither Requires Nor Contemplates The Extreme Database Unbundling Advocated By AT&T And MCI Notice Section II.B.2.

The Act defines network elements as including data bases used in routing traffic and billing for services. AT&T and MCI interpret this modest statutory provision as granting them a right to access any proprietary system operated by a LEC, and to do so simply by effectively hanging a terminal off of the LEC data base. Heralding "parity of information," AT&T demands the right to access all LEC support systems on the same basis as the LEC accesses its own systems.[81]

AT&T's position is unsupportable. Not only is this type of electronic bonding that AT&T describes generally infeasible with LEC systems, to the extent it can be done at all, it would be prohibitively expensive. Furthermore, a grant of AT&T's demand would compromise LEC property interests in LEC data bases and systems, risk the security of those systems (as well as the proprietary information of both the LECs and their customers), and would constitute a direct governmental seizure of the LEC systems and data bases themselves. The proposals for data base and system access set forth in U S WEST's initial comments are more than adequate to create the proper competitive environment called for by the Act.

V. ACCESS CHARGE REFORM IS CRITICAL

[80] Interconnectors should not be allowed to circumvent the Act's resale provisioning requirements by asserting that switched services must be treated as individual network elements. See, e.g., USTA at 25; Sprint at 38; MCI at 30-31.

[81] AT&T at 33-39.

Notice Section II.

One area where U S WEST and AT&T do not seriously disagree is that access charge reform is a critical issue which must be undertaken in tandem with this proceeding.[82] Indeed, practically all commentors, regardless of perspective, correctly perceive that maintenance of pricing anomalies *via* usage restrictions is an unsound idea. Such pricing anomalies include differences between prices for network elements and wholesale services, between network elements and tariffed carrier access and between business and residential retail rates, to name but a few. Regulatory rules which require that the identical service be offered at different rates to promote social or other governmental objectives are the absolute antithesis of competition. It is critical that the Commission keep this principle in mind in these areas:

- New pricing anomalies should not be created in this docket.
- Access charge reform must be implemented immediately. While long-term access charge reform probably needs to be implemented on a transitional basis, immediate actions which are clearly necessary include bulk billing the existing Residual Interconnection Charge ("RIC") and Carrier Common Line ("CCL") charges.[83]

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[82] AT&T at vii, 2; U S WEST Comments at 63.

[83] Some commentors claim that the RIC and CCL charges are phantom charges which need not be recovered at all. Such an argument is disingenuous. Both the RIC and CCL represent the actual costs of doing business for U S WEST. To the extent that these costs have been misassigned by regulators (*via* the separations process or the Part 69 rules), rate rebalancing is necessary. But such regulatory misassignment does not detract from the reality of the costs underlying the RIC or the CCL. U S WEST's interstate rate of return for 1995 would have been negative (-0.11%) if CCL and RIC had been excluded.

- All regulated prices must be rebalanced in order to eliminate subsidies and below-cost rates for all services.

VI. FILING OF OTHER CONTRACTS UNDER SECTION 252
Notice Section III.B.

Various parties assert that existing contracts between incumbent LECs and others must be submitted to State Commissions under Section 252(a)(1) of the Act, and the services and facilities covered by these contracts made available to others pursuant to Section 252(I).[84] While in the long term this position is correct, at least in major markets, for the immediate future it relies on an erroneous interpretation of the Act.

Many agreements in U S WEST's territory, pre-dating the Act, are with extremely small independent LECs in very remote areas. Competitive LECs are not in business in these areas, and none are anticipated soon. Thus, the equal availability provisions of Section 252(i) would not be involved in these areas, unless a competitor actually desired to commence operations in that location. Section 252(I) does not require that an interconnection agreement suitable for one geographic locale be made available in other areas. Filing these contracts would not be productive.

Moreover, incumbent LEC/independent LEC agreements were not negotiated under Section 251 of the Act. Nor were they the result of partisan negotiations between competitors. All that Section 252(a)(1) requires is that, when a Section 251

[84] See, e.g., AT&T at 88-90.

agreement is reached between LECs, if an earlier contract version is in effect, that contract must be filed along with the new one.

As incumbent LECs begin competing with each other, they will need to renegotiate existing interconnection agreements at that time, and make appropriate filings under Section 252(a)(1). To pull existing interconnection agreements between LECs, many of which go back many decades, into the interconnection process at this time is unnecessary and would be unwise.

VII. CALL TERMINATION ISSUES ARE DISCRETE
Notice Section II.B.2.

From an economic perspective, the most intelligent approach to the introduction of competitive market forces into local exchanges must be based upon "competitively-neutral interconnection prices and nondiscriminatory access to the network . . . .[85] Thus, while many demands for below cost pricing of network elements and wholesale services are predicated entirely upon claims of statutory entitlements,[86] discussion of call termination often focuses much more properly on economic issues.[87] The bottom line is that call termination (i.e., from the last end office to the customer) will always be a "bottleneck" (whether the customer is served by the incumbent LEC or a competitor).[88]

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[85] Harris & Yao Affidavit at 35.

[86] See, e.g., MCI at 59-63, 84-86, 90-94.

[87] See NCTA at 47-48; MCI at 48, 51-52.

[88] Time Warner's observation is accurate: "The service which absolutely cannot be duplicated in the ability of a LEC (- either an incumbent LEC or a competing LEC - to complete calls originated on another LEC's network." Time Warner at 50.

However, one aspect of the treatment of call termination in the comments, and in the Notice as well, is troubling. Both claim that the Commission or a state Commission can order a "bill and keep" arrangement for inter-carrier call termination.[89] Requiring bill and keep would be in direct conflict with the 1996 Act. The 1996 Act requires "the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier; . . . ."[90] (Section 252(d)(2)(A)). While the Act permits "arrangements that waive mutual recovery (such as bill and keep arrangements)"[91] this language merely permits parties, in their private negotiations, to enter into bill and keep "arrangements," thereby "waiving" the right to mutual recovery -- it does not permit a regulator to impose such an arrangement. Absent such a "waiver by the parties to negotiation," the Act leaves no room for a state to impose bill and keep on any carrier.[92]

VIII. STATE PREEMPTION
Notice Section II.B.2.

AT&T takes the position that the only state rules subject to preemption under Section 253 of the Act are those which impede the ability of a new entrant to

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[89] Notice ¶ 226; see, e.g., MCI at 51-52.

[90] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, 68 § 252(d)(2)(A)(i) (1996) ("1996 Act").

[91] Id. § 252(d)(2)(B)(i)).

[92] Indeed, § 252(d)(2)(B)(i) makes clear that Congress did not believe that bill and keep constitutes a form of "mutual recovery" -- neither, it is an arrangement that "leaves" mutual recovery. A State Commission has no authority to effectuate such a "waiver" on a LEC's behalf.

compete.[93] By implication, AT&T argues that state rules which prevent an incumbent LEC from competing in a meaningful fashion are not subject to federal preemption. Similarly, a wide array of State Commissions argue vehemently that the Commission is assuming too much power in the Notice, and that their traditional regulatory power over incumbent LECs is not changed by the 1996 Act.[94] Both groups of parties are wrong.

U S WEST agrees that there is considerable room for statutory interpretation in developing the respective roles of the Commission and state regulators under Sections 251 and 252 of the Act. Section 253, on the other hand, is mandatory. Whenever a state regulation may "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service," the Commission "shall preempt the enforcement" of the applicable state rule.[95] When state regulators act in a manner which stifles competition, the Commission must act.

As Harris and Yao noted, regulatory subsidies and cost allocations represent the most serious barrier to competition in the telecommunications market.[96] In the Harris Reply Affidavit, additional anticompetitive state rules are discussed,

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[93] AT&T at 5 n.4.

[94] See, e.g., Illinois Commerce Commission Comments, filed herein May 16, 1996 at 3-18; and see generally Maryland Public Service Commission Comments, filed herein May 16, 1996 and National Association of Regulatory Commissioners Comments, filed herein May 16, 1996.

[95] 1996 Act, 100 Stat. at 70-71(§ 253(a), (d)).

[96] Harris and Yao Affidavit at 1, 4-5, 8-9, 18-23, 29-35.

including carrier of last resort and ready-to-serve obligations, entry and exit rules and unreasonable depreciation rates.[97]

The State of Washington's anticompetitive Order was discussed in U S WEST's Initial Comments.[98] Other anticompetitive regulatory structures include:

- In Iowa, the State Utilities Board ruled that U S WEST's costs for loops cannot exceed the cost for a quarter mile of construction.[99] This ruling will have the economic effect of precluding new loop construction.

- In Colorado, the economic cost of a 1FR service averages $30 per month, while the regulated rate for the service is $18. AT&T and MCI have announced their opposition to any efforts by U S WEST to rationalize this clearly anticompetitive price.

The bottom line is simple. The telecommunications market can be characterized by a social contract, whereby a monopoly provider agrees to provide services attuned to the social goals of regulators (including subsidized residential service) in return for a regulatory structure which enables it to earn a reasonable profit. Or the market can be a competitive one, in which the concept of subsidized prices is completely foreign.

Congress has expressly chosen the latter course. It has effectively terminated the social contract, at both the federal and state levels. State rules,

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[97] Harris Reply Affidavit at 1-7.

[98] See U S WEST Comments at 7-8 and Exhibit B.

[99] See Final Decision and Order, Docket No. RPU-95-10, Iowa Department of Commerce Utilities Board, May 17, 1995.

including pricing rules, which fail to recognize the new competitive regime must be preempted.

Respectfully submitted,

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Its Attorneys

Of Counsel,
Dan L. Poole

May 30, 1996

ATTACHMENT A

STATE OF CALIFORNIA)
) SS: AFFIDAVIT OF R.G. HARRIS
EMERYVILLE)

R.G. HARRIS, of lawful age, first duly sworn deposes and says:

1. I am a Principal at Law and Economics Consulting Group located in Emeryville, California, and have caused to be prepared written testimony and exhibit in support of U S WEST Communications Group, Inc. in Docket No. 96-98.

2. Such transmittal is true and correct as I verily believe.

Further affiant sayeth not.

Robert G. Harris

Subscribed and sworn to before me this 29th day of May, 1996.

KATHY A. STEPHAN
Comm. # 991298
NOTARY PUBLIC - CALIFORNIA
City and County of San Francisco
My Comm. Expires Apr. 11, 1997

Notary Public

MAY-29-96 WED 09:18
MAY 29 '96 11:16AM P.02

A. Introduction, Purpose and Organization of Reply Affidavit

This paper responds to claims made by AT&T, MCI and other parties, that setting prices for unbundled network elements and interconnection services at TSLRIC is necessary to achieve efficient competition in local telecommunications. First, I explain why incumbent local exchange carriers' (ILECs) state regulatory requirements, such as carrier-of-last-resort and ready-to-serve obligations, violate the free entry and exit requirements necessary for a competitive market. Second, I show how uneconomic depreciation rates have caused ILECs' embedded costs to exceed the forward-looking costs required for TSLRIC estimates. Third, I critique the unrealistic assumptions embedded in the Hatfield model, illustrating that the Hatfield model underestimates real world TSLRICs. Finally, I explain that even if TSLRIC is calculated correctly, prices for unbundled elements must be based on and marked up from (and not set at) TSLRIC. If rates were set at TSLRIC and the Commission adopted all of the polices that AT&T and others are advocating, the resulting market conditions would undermine competition and investment and force ILECs into severe financial distress or even insolvency.

B. U S WEST's Service Obligations and the Cost of Providing Exchange Services

In urging the Commission to adopt standards limiting the pricing of interconnection and unbundled network elements to no more than TSLRIC, AT&T, MCI and others discount the LECs' higher embedded costs by making astonishing claims about ILECs having "overbuilt plant" and "gold-plated networks."[1]

However, their explanation for the gap between TSLRIC and the ILECs' embedded costs is a result of a serious misconception or misrepresentation. Historically, U S WEST has functioned under an implicit regulatory contract with the states in which it operates. Under the terms of that contract,

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[1] "[I]f, hypothetically, all retail customers were served by competitors using ILEC unbundled network elements, ILEC revenues would be almost $46 billion less than they are today. However, pricing unbundled network elements (including access) at TSLRIC costs would not result in a $46 billion ILEC revenue loss.... [T]he most significant portion of the gap (38 percent) is in the category of 'overbuilt plant.' The overbuilt plant consists of excess capacity in loops, switches, and buildings. It is not appropriate to recover these costs in the rates for unbundled network elements." MCI's Comments in Response to the NPRM at 3-4, Docket No. 96-98.

U S WEST has been responsible for fulfilling three obligations: serving as "carrier-of-last-resort," providing service on a "ready-to-serve" basis, and selling basic telephone service at regulated, geographically averaged prices to ensure affordability, whether or not the price of any given service to any given customer covers its cost. State commissions achieved these public policy objectives through "rate regulation," which required that U S WEST charge the prices established by the state commission. To compensate ILECs, "rate of return" regulation allowed U S WEST shareholders to earn a reasonable return on their investments.

U S WEST has historically met these service standards and otherwise fulfilled its service obligations by investing hundreds of millions of dollars in the public telephone network of the fourteen states in its region. These investments were made not as the result of "independent business decisions," but in fulfillment of the aforementioned obligations. Setting a price ceiling for unbundled network elements and interconnection equal to TSLRIC would deny U S WEST shareholders any reasonable prospect of earning an equitable return on those investments, and would therefore violate principles of economic efficiency and equity.

The Carrier of Last Resort Obligation

In competitive industries, companies decide to enter a market by investing in production facilities if and when they can reasonably expect to earn a profit from doing so. While there is always an element of risk in such investment decisions, the officers of the company decide when that risk is worth taking. Similarly, when a company is losing money at a particular facility or location, the company may freely decide to "exit" that market by selling off its production facilities.

U S WEST has not been allowed to exercise such discretion in market entry, exit, or investment decisions. Whereas a bank or retail store has the freedom to decide whether to build and operate in a particular location, U S WEST does not.[2] It has been obligated to serve all customers throughout its respective franchise service areas, regardless of whether or not it expects to earn a profit from doing

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[2] Depository institutions such as commercial banks or thrifts do have some quasi-universal service obligations under the Community Reinvestment Act, but these are mild in comparison LECs historical universal service, carrier-of-last-resort and ready-to-serve obligations.

so. Although one readily observes towns without a bank or clothing store, there are no towns without telephone service in the U S WEST service area.

Furthermore, virtually all of the investments made by U S WEST to provide local exchange services are "sunk costs," i.e., assets that cannot be economically redeployed or put to alternative uses. If an airline is losing money in one market, it can move its aircraft to another market, or sell the aircraft in a very efficient secondary market. If a grocery retailer decides to close its business at a particular location, it can sell, lease or rent the space for alternative uses. Telecommunications facilities, in contrast, are highly immobile and specific: one cannot economically move telephone lines, and those lines have no economic value for any use but telecommunications service. Hence, the only way U S WEST will be able to recover its sunk investment costs in these facilities in a competitive marketplace is by regulatory reforms on both the federal and state levels, including making service quality standards and prices compatible with competition in telecommunications services.

The Ready-to-Serve Obligation

Not only has U S WEST been required to serve all customers in its service areas, it has also operated under the requirement to be ready to serve all customers. State commissions have imposed service quality standards which penalize U S WEST if it can not fill orders for basic exchange service within a matter of days. Given the engineering constraints of designing, planning and constructing telephone facilities, U S WEST can meet those service quality standards only by investing well in advance of demand. Moreover, if demand exceeds the forecast, U S WEST must incur extraordinary additional expenses to meet that demand, such as paying premium prices for the expedited delivery of supplies, overtime wages to engineers and construction workers, and the like.[3]

Contrast this ready-to-serve obligation to competitive markets, in which companies do not build enough facilities to meet all demand instantaneously, because it would be prohibitively expensive to do

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[3] In almost every other country in the world, a new customer would wait months for telephone service, because carriers build facilities in response to demand. Moreover, in most countries, customers must pay a large up-front deposit for telephone service, which provides a substantial share of the financing for the facilities and "guarantees" that there will be customers once the facilities are built.

so (particularly for peak periods). Hence airlines do not have enough aircraft or gate space to meet peak demands at holiday travel periods; grocery stores do not add enough checkout lanes to eliminate waiting lines; and manufacturers do not build enough plants to meet all demand instantaneously. Indeed, in many industries, such as semiconductor production, the number of "backorders" is a chief indicator of the competitive health and financial prospects of a company. U S WEST and other ILECs do not have the luxury of adding capacity only when there is actual, current demand for the facilities. The very substantial costs of meeting ready-to-serve obligations are the root source of what MCI claims is "overbuilt plant," and are totally, and erroneously, excluded from the Hatfield cost model.

Implications of Service Obligations for Public Policy

These ILEC obligations were intended to promote specific social goals and were sustainable, despite their conflict with typical competitive conditions, through regulation. However, coupled with unbundling and resale requirements in the federal legislation, these obligations will inevitably distort competition and unfairly disadvantage incumbent LECs. If ILECs become the sole carriers required to endure carrier-of-last-resort obligations within the new competitive framework, they will be forced to assume all of the risk involved in the construction of new facilities. This would still be true, even if the wholesale rates of unbundled facilities are priced above TSLRIC and at geographically deaveraged rates. For example, if the least-cost technology for providing local loops changes from wireline to wireless, incumbent LECs could be left with stranded investment that they were required to build out at the request of a competitor or end-user. In fact, Competitive Local Exchange Carriers (CLECs) would have the incentive to force carriers-of-last-resort to build out facilities that could be deliberately stranded as soon as the CLEC is able to provide duplicate facilities. For this reason, U S WEST should not be required to build *new* facilities for competitors without privately negotiated contracts containing term commitments and termination penalties. Additionally, if facilities built for end-users under carrier-of-last-resort rules are subsequently stranded, U S WEST or any other carrier-of-last-resort must be allowed to recover the cost of the investment through a competitively neutral mechanism.

In a fully competitive local exchange market without carrier-of-last-resort or ready-to-serve obligations, U S WEST would be free to negotiate mutually beneficial network build-outs for end-user customers or for resellers, based on term commitments and "take or pay" clauses which would allow U S WEST to recover the cost of its investment.

C. Embedded Costs and Uneconomic Depreciation of ILEC Assets

Several of the parties claim that the fact that incumbent LECs' embedded costs are in excess of TSLRIC is evidence that ILECs have not been operating efficiently.[4] In fact, there are two main reasons why incumbent LECs' embedded costs appear to be so much greater than TSLRIC. First, as will be explained in the next section, the gap is evidence of how grossly the Hatfield model underestimates TSLRIC. Second, ILECs' embedded costs are greater than even correctly estimated forward-looking costs because depreciation rates have been set at uneconomic levels by state regulators.

Regulators have consistently required that U S WEST use longer asset lives than it would have chosen for itself, which has resulted in accumulated "uneconomic" costs and potentially stranded investment. Table I below provides a point of comparison between U S WEST's regulated depreciation rates and the economic rates used by competitors for three different types of plant in the state of Washington. Clearly, in many instances, U S WEST is forced to depreciate its investments at uneconomically slow rates.

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[4] AT&T, for example, claims that "There is every reason to believe that ILEC architecture, sizing, technology, and operating practices, by contrast, have routinely departed from efficiency." AT&T's Comments in Response to the NPRM at 57-58, Docket No. 96-98.

Table I: Comparison of Depreciation Lives as of 1995 (in Years)

Company Name	Digital Switching	Digital Circuit	Fiber Optic Cable
AT&T	9.7	7.2	20
Electric Lightwave	10	10	20
Teleport	10	8	20
US WEST Intrastate rate in Washington	18	13	30

Source: U S WEST State Regulatory Filing in Washington

In a stable, regulated environment, prescribed lives protected consumers from rate shocks that could otherwise have been caused by early retirement of telephone plant, and the negative impacts of those prescribed lives were minimal: (1) competition was not harmed because competition was not a significant factor; and (2) shareholders were protected by regulatory accounting principles, which allowed U S WEST to set prices to recover the cost of capital investments, even after telephone plant was retired. However, with competition emerging, state jurisdictions no longer offer a "monopoly franchise," and shareholders are at risk when depreciation rates are understated.

In competitive markets, depreciation rates reflect the true economic lives of the assets to which they correspond. Therefore, in competitive markets, embedded costs based on accurate economic depreciation rates are, by definition, equal to "forward-looking" costs, because economic depreciation rates anticipate and account for the changes in technology, substitute products and competitive conditions that affect the economic lives of assets. Thus, the fact that ILECs' embedded costs are so much greater than TSLRIC can only indicate that depreciation rates have continuously been set too low. Hence, in the current environment, the principles of causality and realism in cost estimation necessitate the use of economic depreciation lives, rather than the uneconomic lives prescribed by regulators, in estimating TSLRICs.

The harmful effects of using artificially long prescribed depreciation lives are likely to increase dramatically in the near term. With the convergence of disparate technologies for providing local exchange services, it is highly likely that economic lives will shorten even further, increasing the disparity between prescribed and economic depreciation rates. For example, the upgrade of cable TV plants to offer interactive broadband services will drastically reduce the economic lives of U S WEST's local loops. U S WEST must also consider the increasing likelihood of stranded plant as competitors gain market share, especially if competitors are able to win discrete geographic areas, thereby displacing U S WEST as the primary facilities-based provider in those areas.

In an increasingly competitive telecommunications market, if U S WEST is able to make network investment decisions based on its own business strategy without asymmetric regulatory requirements, it will set its own depreciation lives based on its own best estimates of market conditions. If the company miscalculates, or if it chooses to depreciate its assets at an artificially low rate, it may very well have to write-off parts of its sunk investments.[5] However, all of the sunk investments and subsequent write-offs made by companies in competitive markets are dictated by market and technological forces, not regulatory policy. Thus, such companies are not entitled to protection from market-based write-offs.

However, these write-offs resulting from independent business decisions by unregulated companies are fundamentally different from those resulting from past regulatory policy decisions designed to reduce the cost of basic local exchange service. U S WEST should be allowed to recover embedded costs from investments it was required to make under its carrier-of-last-resort and ready-to-serve obligations, especially since the rates of deprecation have been intentionally slowed by regulators to keep local exchange rates down.

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[5] There are many instances in competitive industries where companies have misjudged the economic lives of their investments, thus temporarily overstating their profits until they were forced to write-off those assets. Coca-Cola, IBM, and Ford are good examples.

D. TSLRIC Estimates Should Be Based on Realistic Assumptions

MCI contends that TSLRIC "should serve as the standard for rates charged for unbundled elements" and that "[t]hese rates should be established by the Commission as presumptive price ceilings." MCI proffers TSLRIC cost estimates from the Hatfield model as "evidence" that "access rates are currently well in excess of economic cost."[6] In this section, I will show that the Hatfield model is based on highly naïve, fatally flawed assumptions about the cost of providing local exchange services, given the strict ready-to-serve obligations and service quality standards imposed on ILECs. In the last section of this reply affidavit, I will explain why, even if correctly estimated, TSLRIC should not be used as a price ceiling for any telecommunications service, including interconnection and unbundled network elements.

The AT&T/Hatfield conceptualization of TSLRIC is fatally flawed. According to AT&T:

> "The economic costs to be measured are the costs an efficient, cost-minimizing competitor would incur — i.e., the costs of assets that are optimally configured and sized with current technology and efficient operating practices. The past architecture, sizing, technology, or operating decisions of the ILECs should not serve as bases for calculating TSLRIC."[7,8]

Yet in no industry I have studied is it possible to build capacity "optimally" in anticipation of future demand, technological change, etc. Airlines continue to fly older, less fuel efficient aircraft; manufacturers continue to use older production plants, even though newer, more efficient technology is available. Moreover, producers seldom build "whole new facilities" starting from scratch. It is far more common for capacity investments to be limited by current locations, existing technologies, and the need to modify, modernize and expand existing facilities. If AT&T were correct that competition drives prices to the "theoretical" minimum cost of production, no firm could survive -- nor would any

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[6] MCI's Comments in Response to the NPRM at iii, Docket No. 96-98.

[7] AT&T's Comments in Response to the NPRM at 57-58, Docket No. 96-98.

[8] It should be noted that contrary to AT&T's assertion, some state commissions have already permitted the use of existing network architecture to estimate TSLRIC. For example, as defined in the Colorado cost and pricing rules, "[A]n estimate of total service long run incremental cost can be generated by assuming that the geographic locations of routes and possible switching locations are the same as those available to the firm today and that the types of technological change in the future can be anticipated." Colorado Cost and Pricing Rules Adopted in Docket No. 92R-596T, Rule 2 (45) (b).